PTO/SB/21 (05-03) Approved for use through 04/30/2003. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE der the Paperwork Reduction Act of 1995, no persons are required to respond to collection of information unless it displays a valid OMB control number. PADENCE Application Number 10/706.352 TRANSMITTAL Filing Date March 17. 2003 **FORM** First Named Inventor **Dumont M. Jones** Art Unit (to be used for all correspondence after initial filing) **Examiner Name** Attorney Docket Number DMJ 2-002 11 Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance communication Fee Transmittal Form Drawing(s) to Group Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to Group Petition (Appeal Notice, Brief, Reply Brief) Amendment/Reply Petition to Convert to a Proprietary Information After Final Provisional Application Power of Attorney, Revocation Status-Letter Affidavits/declaration(s) Change of Correspondence Address Other Enclosure(s) (please Terminal Disclaimer **Extension of Time Request** Identify below): Request for Refund **Express Abandonment Request** CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority Document(s) Completed form 1449a 40 cited patents Response to Missing Parts/ Incomplete Application 3 cited publications Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Gerald L. Smith Individual name Mueller and Smith, LP Signature Date February 17, 2004. CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with

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	Jane Keeney		
Signature	Jane Keeneer_	Date	February 17, 2004
			

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re A	pplication of)
	Dumont M. Jones)
Serial I	No. 10/706,352)
Filed:	November 11, 2003)
For:	Document Search Method-With Interactively Employed Distance Graphics Display)

COMMISSIONER OF PATENTS AND TRADEMARKS P. O. BOX 1450 ALEXANDRIA, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is filed in conformity with 37 C.F.R. §§1.56 and 1.97. Accordingly, copies of the art cited herein are provided:

U.S. Patent No.	<u>Date</u>	<u>Name</u>
6,668,256	12-23-2003	Lynch
6,665,661	12-16-2003	Hogg, et al.
6,654,739	11-25-2003	Crow, et al.
6,654,743	11-25-2003	Apte, et al.
6,633,868	10-14-2003	Min, et al.
6,631,373	10-07-2003	Otani, et al.
6,625,606	09-23-2003	Kondo
6,621,930	09-16-2003	Smadja
6,611,825	08-26-2003	Billheimer, et al.
6,553,382	04-22-2003	Hatori
6,542,889′	04-01-2003	Aggarwal, et al.
6,535,875	03-18-2003	Takahashi, et al.
6,526,440	02-25-2003	Bjarat
6,522,782	02-18-2003	Pass, et al.
6,519,580	02-11-2003	Johnson, et al.
6,505,197	01-07-2003	Sundaresan, et al.

6,499,026	12-24-2002	Rivette, et al.
6,480,837	11-12-2002	Dutta
6,445,822	09-03-2002	Crill, et al.
6,397,205	05-28-2002	Juola
6,360,277	03-19-2002	Aggarwal, et al.
6,260,051	07-10-2001	Katamyama, et al.
6,169,969	01-02-2001	Cohen
6,131,091	10-10-2000	Light
6,047,277	04-04-2000	Parry, et al.
6,012,053	04-04-2000	Pant, et al.
5,978,797	11-02-1999	Yianilos
5,893,092	04-06-1999	Driscoll
5,787,420	07-28-1998	Turkey, et al.
5,771,378	06-23-1998	Holt, et al.
5,748,953	05-05-1998	Mizutani, et al.
5,706,365	01-06-1998	Rangarajan, et al.
5,687,364	11-11-1997	Saund, et al.
5,659,766	08-19-1997	Saund, et al.
5,642,502	06-24-1997	Driscoll
5,600,835	02-04-1997	Garland, et al.
5,553,226	09-03-1996	Kiuchi, et al.
5,442,778	08-15-1995	Pedersen, et al.
5,297,039	03-22-1994	Kanaegami, et al.
5,278,980	01-11-1994	Pedersen, et al.

GEOFFREY M. DOWNS AND PETER WILLETT, Similarity Searching in Databases of Chemical Structures, Reviews in Computational Chemistry, Vol. 7, VCH Publishers, Inc., New York, 1996.

WRAY BUNTINE, Graphical Models for Discovering Knowledge, Thinkbank, Inc.

CHUN-NAN HSU AND CRAIG A. KNOBLOCK, <u>Using Inductive Learning To Generate</u>
Rules for Semantic Query Optimization, University of Southern California

REMARKS

U. S. Patent No. 6,668,256 describes a method for selection of discriminate terms (one or more) in a document for use in document categorization;

- U. S. Patent No. 6,665,661 describes a search method in which text is converted to context vectors, which in turn are used for data record categorization;
- U. S. Patent No. 6,654,739 describes an efficient clustering method, using reduced dimensionality indexes of the documents;
- U. S. Patent No. 6,654,743 describes a method for clustering documents, using self-assembly techniques;
- U. S. Patent No. 6,633,868 describes a search/categorization method that ranks results based on statistics of word relationships and correlations;
- U. S. Patent No. 6,631,373 describes a method for search based on the searching, weighting and indexing of pre-defined document sections;
- U. S. Patent No. 6,625,606 describes a method for abstracting document digests and improving search efficiency using those digests in searches;
- U. S. Patent No. 6,621,930 describes a method for categorizing documents based on the statistical characteristics of reference groups;
- U. S. Patent No. 6,611,825 describes a search method by comparison with vectors that describe word and term frequencies;
- U. S. Patent No. 6,553,382 describes a method for automatically merging hierarchical keywords and attribute information, for improved data management;
- U. S. Patent No. 6,542,889 describes a method for performing document search by generating conceptual word-chains and evaluating a similarity query using the conceptual index:
- U. S. Patent No. 6,535,875 describes a method for cataloging text and structuring the textual content of a document;
- U. S. Patent No. 6,526,440 describes a search engine that improves the relevancy of search results by using the interconnectivity of the initially returned set of documents;
- U. S. Patent No. 6,522,782 describes a method for indexing and searching of text and images;
- U. S. Patent No. 6,519,580 describes a method for categorizing text, using rules derived from pre-defined training data;
- U. S. Patent No. 6,505,197 describes a method for identifying patterns and relations of terms in a set of documents;
- U. S. Patent No. 6,499,026 describes a method to process, visualize and compare patent documents with other documents (specifically business documents);
- U. S. Patent No. 6,480,837 describes a method for ordering searched electronic files by popularity weighting;

- U. S. Patent No. 6,445,822 describes a method for comparing one binary image to a reference image;
- U. S. Patent No. 6,397,205 describes a method for categorizing documents based on candidate functions and the degree divergence from a reference standard;
- U. S. Patent No. 6,360,227 describes a method for generating tree taxonomies to display concepts, using calculated distances between documents;
 - U. S. Patent No. 6,260,051 descries a method for hashing a text document.
- U. S. Patent No. 6,169,969 describes a method (and apparatus) for rapid full-text pattern matches in a large dictionary, with minimal textual preprocessing;
- U. S. Patent No. 6,131,091 describes a method for determining the relevance of streaming data using numerical evaluations contained in topic vectors;
- U. S. Patent No. 6,047,277 describes a method for categorizing text documents using neural networks;
- U. S. Patent No. 6,012,053 describes a method (and apparatus) for rapid full-text pattern matches in a large dictionary, with minimal textual preprocessing;
- U. S. Patent No. 5,978,797 describes a database search method, considering word/phrase frequencies and alignment, and resulting in a ranking of records by similarity to an input query;
- U. S. Patent No. 5,893,092 describes an iterative method for searching using natural language queries and user feedback on returned results;
- U. S. Patent No. 5,787,420 describes a clustering method for document categorization;
- U. S. Patent No. 5,771,378 describes a method for document search, calculating ranks by a formula that varies according to the square of the frequency in each of the text documents of each of the search terms;
- U. S. Patent No. 5,748,953 describes a hashing method for documents to speed database searching of documents;
- U. S. Patent No. 5,706,365 describes a system for indexing and retrieval of stored documents using a decomposition of words in the documents in n-grams, or linear word subunits;
- U. S. Patent No. 5,687,364 describes an unsupervised method of learning the relationships between words and unspecified topics in documents, using training documents;
- U. S. Patent No. 5,659,766 describes an iterative method of determining the topical content of a document using a computer, based on feature vectors;

- U. S. Patent No. 5,642,502 describes an interactive method for searching using natural language queries and user feedback on returned results;
- U. S. Patent No. 5,600,835 describes a method for selectively retrieving information in a stored document set using a non-literal, or "fuzzy". search strategy;
- U. S. Patent No. 5,553,226 describes a system for displaying concepts, linking super-, sub-, and instances of concepts in a multi-window display;
- U. S. Patent No. 5,442,778 describes a method for iteratively and interactively selecting and ref8ining document clusters to browse a document collection;
- U. S. Patent No. 5,297,039 describes a method to extract and query analysis networks;
- U. S. Patent No. 5,278,980 describes a method for iteratively and interactively selecting and refining document clusters to browse a document collection;

Publication No. 1 discusses the searching of chemical structure databases;

Publication No. 2 summarizes methods for representing knowledge and problems via graph theoretical methods;

Publication No. 3 describes database query optimization using an inductive learning algorithm.

It respectfully is submitted that none of the foregoing art, alone or in combination, shows or proposes the present invention. Accordingly, favorable action on the application respectfully is requested.

Respectfully submitted,

Gerald L. Smith

Reg. No. 22,009

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Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/706,352			
Filing Date	November 11, 2003			
First Named Inventor	Dumont M. Jones			
Art Unit	<u> </u>			
Examiner Name				
Attorney Docket Number	DM.I 2-002			

			U. S. PATEN	DOCUMENTS	· · · · · ·
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (# known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	<u> </u>	US- 6,668,256	12-23-2003	Lynch	
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	<u> </u>	^{US-} 6,665,661	12-16-2003	Crow, et al.	
		^{US-} 6,654,743	11-25-2003	Hogg, et al.	
		^{US-} 6,654,739	11-25-2003	Apte, et al.	
		^{US-} 6,633,868	10-14-2003	Min, et al.	
		^{US-} 6,631,373	10-07-2003	Otani, et al.	
		^{US-} 6,625,606	09-23-2003	Kondo	
		^{US-} 6,621,930	09-16-2003	Smadja	
		^{US-} 6,611,825	08-26-2003	Billheimer, et al.	
		^{US-} 6,553,382	04-22-2003	Hatori	
		^{US-} 6,542,889	04-01-2003	Aggarwal, et al.	
		^{US-} 6,535,875	03-18-2003	Takahashi, et al.	
		^{US-} 6,526,440	02-25-2003	Bjarat	
		^{US-} 6,522,782	02-18-2003	Pass, et al .	
-		^{US-} 6,519,580	02-11-2003	Johnson, et al.	
		^{US-} 6,505,197	01-07-2003	Sundaresan, et al.	
		^{US-} 6,499,026	12-24-2002	Rivette, et al.	
		^{US-} 6,480,837	11-12-2002	Dutta	
		^{US-} 6,445,822	09-03-2002	Crill, et al.	

		FORE	IGN PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
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Signature	Considered	

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041	Salato loi loilli 1440/1 10	Application Number	10/706,352		
11	FORMATION DISCLOSURE	Filing Date	November 11, 2003		
		First Named Inventor	Dumont M. Jones		
STATEMENT BY APPLICANT		Art Unit			
	(Use as many sheets as necessary)	Examiner Name			
Sheet	2 of 4	Attorney Docket Number	DMJ 2-002		

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear
		^{US-} 6,397,205	05-28-2002	Juola	
		^{US-} 6,360,277	03-19-2002	Aggarwal, et al.	
		^{US-} 6,260,051	07-10-2001	Katamyama, et al.	
		^{US-} 6,169,969	01-02-2001	Cohen	
		^{US-} 6,131,091	10-10-2000	Light	
		^{US-} 6,047,277	04-04-2000	Parry, et al.	
· · · · · · · · · · · · · · · · · · ·		^{US-} 6,012,053	04-04-2000	Pant, et al.	
		^{US-} 5,978,797	11-02-1999	Yianilos	
		^{US-} 5,893,092	04-06-1999	Driscoll	
		^{US-} 5,787,420	07-28-1998	Turkey, et al.	
		^{US-} 5,771,378	06-23-1998	Holt, et al.	
		^{US-} 5,748,953	05-05-1998	Mizutani, et al.	
		^{US-} 5,706,365	01-06-1998	Rangarajan, et al.	
		^{US-} 5,687,364	11-11-1997	Saund, et al.	
-		^{US-} 5,659,766	08-19-1997	Saund, et al.	
-		^{US-} 5,642,502	06-24-1997	Driscoll	
		^{US-} 5,600,835	02-04-1997	Garland, et al.	,
		^{US-} 5,553,226	09-03-1996	Kiuchi, et al.	
		^{US-} 5,442,778	08-15-1995	Pedersen, et al.	

	FOREIGN PATENT DOCUMENTS						
Examiner Cite	Cite No.1	Cite Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
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Signature	Considered	

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Complete if Known Substitute for form 1449/PTO Application Number 10/706,352 Filing Date November 11, 2003 INFORMATION DISCLOSURE First Named Inventor Dumont M. Jones STATEMENT BY APPLICANT Art Unit (Use as many sheets as necessary) **Examiner Name** Attomey Docket Number DMJ 2-002

Sheet 3

U. S. PATENT DOCUMENTS									
Examiner Initials*	Cite No. ¹	Document Number Publication Date MM-DD-YYYY Number-Kind Code ^{2 (f known)}		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
		^{US-} 5,297,039	03-22-1994	Kanaegami, et al.					
-		^{US-} 5,278,980	01-11-1994	Pedersen, et al.					
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	FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear				
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Examiner Signature		Date Considered	
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Substitute for form 1449A/PTO				Complete if Known			
				Application Number	10/706,352		
INIEO	DMATION DI	ISCI O	CLIDE	Filing Date	November 11, 2003		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				First Named Inventor	Dumont M. Jones		
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Sheet	4	of	4	Attorney Docket Number	DMJ 2-002		

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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
EXAMINER INITIALS*	CITE NO. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), Publisher, city and/or country where published				
	1	GEOFFREY M. DOWNS AND PETER WILLETT, Similarity Searching in Databases of Chemical Structures, Reviews in Computational Chemistry, Vol 7, VCH Publishers, Inc., New York, 1996.				
	2	WRAY BUNTINE, <u>Graphical Models for Discovering Knowledge</u> , Thinkbank, Inc.				
	3	CHUN-NAN HSU AND CRAIG . KNOBLOCK, <u>Using Inductive Learning To</u> <u>Generate Rules for Semantic Query Optimization</u> , University of Southern California.				

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